

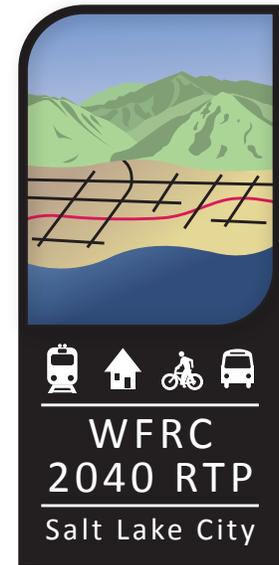


Need for Regional Visioning

Utah is one of the fastest growing states in the country. Population along the Wasatch Front is projected to increase by 55 percent, or to be 1.5 times the current population, between now and 2040. How we accommodate this growth will largely determine the quality of life residents will experience.

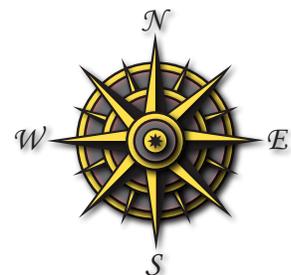
Along with opportunities, growth creates challenges for transportation, housing choice and affordability, air quality, the economy, cost of living, critical lands, outdoor recreation areas, water, and public health. Many current trends are troubling, jeopardizing what we value most about life in Utah.

Concerned with growth-related challenges, elected officials recognized the need to look well into the future and plan for the changes that are coming. In response to these concerns, *Wasatch Choices 2040 - A Four County Land Use and Transportation Vision* was developed and included both a Regional Vision and a set of Growth Principles. For the 2011-2040 RTP, the WFRC updated its original work. Known as the *Wasatch Choice for 2040*, this revised version of the Region Vision has been adopted by the Wasatch Front Regional Council.



Chapter 2

Photo at Left: The Interstate 15 corridor and *FrontRunner* commuter rail run parallel to Legacy Parkway, which is under construction in this photo. This critical transportation corridor facilitates commuter mobility between northern and southern Davis County and is an integral transportation component in the larger, regional context.



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WASATCH CHOICE FOR 2040

In 2004, the WFRC, MAG, UDOT and UTA, with assistance from staff members of Envision Utah, initiated the Wasatch Choices 2040 effort with the goals of finding a more effective approach to transportation planning in Weber, Davis, Salt Lake and Utah Counties. Thousands of residents, local technical experts and elected officials contributed to Wasatch Choices 2040 through workshops, scenario building, independent polling, and on-line surveys. Wasatch Choices 2040 identified a series of growth principles, a regional vision and implementation strategies to guide local development decisions and make the Region's transportation system more efficient and cost-effective. Subsequently, the WFRC, MAG and Envision Utah, in close collaboration with local elected officials, further refined the vision, creating The Wasatch Choice for 2040. In 2010, WFRC formally adopted The Wasatch Choice for 2040 as the Regional Vision designed to address our Region's growth and provide the foundation for the 2040 RTP.

Reasons for Visioning

The Wasatch Front Region is creating the type of future it desires with the decisions we make today. Visioning allows planners to explore potential futures relative to growth patterns, transportation solutions, and the environment. By understanding the needs of the future, planners can work backward to the decisions that need to be made today. The regional visioning process emphasizes using our limited financial resources more effectively, integrating land-use and transportation systems, meeting housing needs, building in areas with existing infrastructure, and energy conservation. It envisions new mixed-use villages and economic centers tied together by an efficient, modern transportation system. This Vision for the future of the four urban counties is based on extensive market research showing that changing consumer demographics and preferences, increasing land and energy costs, and a growing desire to trade commute time for family and recreation time are driving demand for living in or near centers. In short, it gives people the housing and transportation choices they want in a way that maximizes land use and benefits everyone.

Growth Issues

The State of Utah enjoys an unparalleled quality of life, access to the outdoors and rich economic opportunities. The State also has a significant population growth challenge. Utah has one of the nation's highest population growth rates, recently ranked as sixth highest in the country. A majority of anticipated growth will occur within the urbanized areas of Weber, Davis, Salt Lake, and Utah County. In the next 30 years, population will increase by 61 percent, adding another 1.3 million residents. If growth patterns of the past few decades continue, the consequences will be an intensification of the social, economic, and environmental impacts noted elsewhere in this document. With the growth in population, the anticipated growth of daily VMT on the Region's roads will nearly double from 49million to 90 million by 2040.

As the population continues to grow, and VMT nearly doubles, the Region's overall air quality will deteriorate, threatening our health and economic prosperity. If current trends continue, nearly 300 square miles in the Weber, Davis, Salt Lake, and Utah Counties will be converted to urban use by 2040. About 100 square miles of this land will have formerly been used for agricultural purposes. Finally, the cost of growth-related municipal infrastructure is also of concern. Growth-related expenditures which include transportation, water and utilities rose from 31 percent of local municipal budgets in 1982 to 61percent in 2002.

Addressing Needs Through Land Use and Urban Form

In order to address the growth-driven needs for new investments in the region's infrastructure, realistic alternatives need to be considered. Many of these alternatives emerged during the workshop and open house phases of the visioning process. Some of the ideas for alternatives included: (1) encouraging more compact growth and less sprawl; (2) creation of a better geographic balance between housing and the workplace; (3) encouraging mixed land use and transit oriented development; and (4) making greater use of public transportation. Many of these ideas have been studied extensively, and, if implemented properly, could help reduce travel demand and the need to construct traditionally more costly transportation infrastructure.

DESCRIPTION OF VISION METHODOLOGY

The visioning process was accomplished over several years. It was a new approach for laying down an informational base for the regional transportation plan and involved many technical planning and public involvement tasks. The collection of regional population, employment, land use, transportation, and socio-economic data; and the development of specialized studies, data analyses, and public surveys were essential parts of the process. The public outreach process engaged local governments as partners in identifying stakeholders who would be willing to participate in the workshops. Workshop participants were asked the following two basic questions: “What is the future we want to create?” and “What will help us create that future?”

Public Outreach Process

The visioning process involved an extensive public outreach program. From beginning to end, the general public, local elected officials, and others representing specific interests were given an opportunity to participate in workshops, open houses, and surveys. Much valuable information was gleaned from the outreach activities, without which the project outcomes could not have been achieved. The collaborating parties all agreed that there were many good reasons to embark on an elaborate public outreach, or visioning process. One of the reasons was clear - it is always a positive factor to encourage public participation in the development of plans. There was also a desire to involve a full range of other interested parties, such as representative of local governments, resource agencies, transportation service providers, etc. By the end of the process, all of the participants became partners in the process which helped to ensure its success. Besides the desire of the sponsors for a broad-based community-wide effort, there were other conditions which helped decision-makers determine the time was right to conduct a region-wide visioning process. These conditions included the general recognition that rapid growth is taking place, unfunded needs within the regional transportation system that needed to be addressed, the desire to maintain or even

improve the Region’s economic competitiveness, and strong interest in maintaining the quality of life.

Meetings With Local Government Officials

At the beginning of the visioning process, MPO staff members and representatives from Envision Utah met with each local government entity to educate them on the visioning process, address any questions, and to develop inclusive stakeholder invitation lists for the thirteen scheduled workshops. Face-to-face meetings were held with the chief elected official and key staff members and, at their discretion, meetings were also held with the governing body and / or the planning commission.

Public Workshops

A total of thirteen workshops, involving over 1,000 participants were held as part of the visioning process. Meetings took place in the cities of Ogden, Roy, Bountiful, Layton, Sandy, Riverton, South Salt Lake, Taylorsville, Pleasant Grove, Orem, Lehi, Payson, and Salt Lake City. At each workshop participants received instructions on the visioning process and copies of preference questionnaires. Participants were organized into small, randomly assigned groups. They were given a map of their county and asked to indicate: (1) where growth should take place; (2) the density of growth they would prefer; and (3) their transportation preferences. This resulted in the production of 119 maps for the four-county area indicating opinions, ideas and preferences about growth. Each group received chips



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representing different types of residential, commercial, and mixed-use development. The total number of chips equaled the 2040 growth projections made by the Governor’s Office of Planning and Budget for the four-county area. Each group was asked to accommodate projected growth through current types of development or through alternative approaches such as mixed-use activity centers or linear (boulevard) corridors. Workshop groups also indicated where they wanted transportation facilities, including new or improved transit, roadways, and bicycle lanes, and pedestrian trails.

The results of the workshops and surveys were tallied and analyzed. Common themes and concepts emerged that guided the development of four growth scenarios that can be described as:

- Scenario A: Business as Usual (baseline)
- Scenario B: Transit Station Villages
- Scenario C: Interconnected Network of Complete Streets
- Scenario D: Centers of Employment

Public Open Houses

Five stakeholder open houses involving 500 participants were held in cities throughout the region to review and consider the four growth scenarios that emerged from the public workshops. At each open house, participants were surveyed to identify the scenario they preferred and asked to respond to other growth-related questions. The findings of this survey, as well as comments received on-line, from a variety of public meetings and from members of city councils and planning commissions, served as the basis for initial drafts of the vision scenario.

Surveys and Questionnaires

As noted above, surveys were conducted at various stages of the visioning process. Early in the process the workshop survey was conducted, followed by a Dan Jones telephone survey, and the open house participant surveys. During workshops, questionnaires were distributed to determine the opinion of participant’s regarding the natural environment, growth, and transportation issues that are challenging the region. Those surveyed indicated they generally enjoyed their quality of life, but are concerned about growth. Most residents supported adopting and integrating growth principles into future land use and transportation planning decisions.

Local Government Visits, Presentations, and Input

Once the visioning process was concluded, the results were shared with the local government officials. The Regional Growth Principles and Vision were presented to all 47 local governments in the urbanized areas of the region. Representatives from the WFRC and Envision Utah met with municipal and county elected officials. A slide presentation highlighting the growth principles and Vision was used to explain how the Growth Principles were generated and would be used to prepare the Regional Transportation Plan. An overwhelming majority of these officials said they would support the growth principles. Most responded positively to the land use scenarios proposed in the Vision statement calling for the establishment of mixed-use activity centers of various sizes, connected by high capacity transportation facilities, an enhanced public transit system, and somewhat more compact growth. By and large, local government officials agreed with the proposed land use recommendations, with some suggesting minor changes to the proposed Vision land use map. A few communities indicated they would use their existing plans as a guide to future development, rather than the Vision statement. The input received during these meetings was noted and used in creating a refined land use Vision map. Subsequently, this refined map was used as a basis for generating the land use inputs to the transportation demand modeling process.

Technical Support Activities

The WFRC staff provided significant technical support to the visioning process. During the workshops and open houses, information which was used to develop various growth scenarios was obtained from the participants. The workshop activities resulted in the generation of valuable input, were useful in determining community values, and helped identify the types of development that is most desired. The growth scenarios presented in the workshops required data support and modeling so that they could be tested to determine practicality and effectiveness. What follows is a detailed explanation of what was accomplished and methods used in developing and testing the growth scenarios.

Map Analysis of Land Use and Transportation

Each of the 119 maps produced during the workshop process were generated by groups of six or seven participants. The maps show local community desires for the distribution of future Regional growth in population, employment, commercial

businesses, office, schools, trails, and transportation; and how to protect critical and sensitive lands. These maps were digitized into a geographic information system (GIS), which allowed for an analysis of preferences, and a summarization of issues, concerns, and common themes.

The GIS maps helped answer the following questions: (1) Where did the participants of each group desire new development to take place and critical lands to be preserved?; (2) What type of development did the groups desire - residential, commercial, or mixed-use?; and (3) How dense or intense did the groups want development to be? The maps were also analyzed to identify preferred types of development in any given area, such as: residential, commercial, mixed-use, or open space.

Based on input from the maps, participants desire that growth take place in older urbanized areas and along heavily used transportation corridors and around specific types of development nodes. The participants also encouraged mixed-use forms of development in existing commercial centers, such as the Layton Mall and downtown Salt Lake City. “Hot spots”, where intense employment centers would be appropriate, were also identified. The summary GIS maps were subsequently used to serve as a basis in further explaining the alternative growth and “vision” scenarios.

Managing the Process

The visioning process started with a work scope, funding plan, budget and a Memorandum of Agreement between the three participating organizations. The work scope outlined work tasks to be undertaken through the visioning, and identified a division of responsibility between the partnering entities. A working group was organized early to help guide the process. This group was called the “Collaboration Group”, and was comprised of representatives of the partnering entities,



the Utah Department of Transportation, the Utah Transit Authority, and the Governor’s Office of Planning and Budget. In addition, the Regional Growth Committee of the WFRC was expanded to include a broader spectrum of stakeholders from the business community, local governments, state and federal agencies, special interest groups, and others. Representatives of local government, and the business community from Utah County were also invited to participate in the expanded RGC. The expanded Regional Growth Committee was temporarily designated as the RGC Steering Committee, and was given responsibility for guiding the process and making recommendations to the WFRC and MAG.

COMMON REGIONAL THEMES

An analysis of the 119 maps developed during the workshops showed striking similarities tempered with divergent ideas. After an extensive review of the workshop maps, the general themes discussed in the following paragraphs emerged. These themes became part of the overall visioning recommendations and were incorporated into the Wasatch Choices for 2040 draft document.

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Emphasis on Growth Centers

Workshop participants envisioned approximately 40 percent of all new residential development be in the form of a mixed-use scenario, such as a village, town center, or city center. This may signify a desire to have employment centers in each part of the Region; a desire to have a focal point, or “heart” for each community; and / or an interest in a walkable form of development that mixes jobs, shopping and housing.

Desire for Land Recycling

In addition to having more centers in the communities, workshop participants preferred that the centers be located in existing commercial areas adjacent to major transportation facilities. Participants placed nearly 50 percent of the proposed housing and 45 percent of the proposed employment on land that is currently occupied. Perhaps this signifies an interest in the gradual evolution of some commercial areas.

Preference for a Variety of Housing

Workshop participants preferred that neighborhoods maintain much of their current ambience, but with a notable increase in the variety of housing options. Residential chips placed on workshop maps averaged 60 percent detached stand-alone homes, 25 percent townhouses, and 15 percent apartments or condominiums. The urbanized portion of the region currently consists of 67 percent single family dwellings. Although participants expressed an interest in a greater variety of housing, they still desired detached single-family residences to predominate in future communities.

Emphasis on Bicycle and Pedestrian Routes

Approximately 30 percent of all transportation routes placed on workshop maps represented bicycle and pedestrian routes, indicating the popularity of these options. Clearly, participants felt that an extensive system of bicycle and pedestrian routes should be encouraged to promote flexibility in transportation choices and to encourage healthy recreational activities.

SPECIAL STUDIES

In support of the visioning process, several specialized studies were conducted to provide additional information and direction in establishing realistic assumptions about redevelopment, infill, housing market demand, open space and corridors. The visioning process benefited from these studies, which highlighted important areas of concern.

Redevelopment and Infill Potential Analysis

A local consulting firm was hired to assist with creating estimates of long-term redevelopment and infill activity that could be reasonably anticipated, given different patterns of development and transportation investments. As a part of this effort, tax lot parcel databases were consulted for the affected counties. An effort was made to account for the availability of underutilized land not readily apparent from the county databases.

To further the effort, the University of Utah’s Energy and Geosciences Institute provided information from its satellite imagery database. Parcels greater than one acre in size were analyzed to distinguish the degree to which they had already been developed. Exceptions were made in analyzing the parcels to account for vacant properties associated with public uses and other factors that precluded them from future development. The output of this analysis was then applied to the land use modeling process for each of the four general growth scenarios evaluated in the visioning process allowing for further refinement and accuracy. These four growth scenarios are detailed in the following section.

Housing Needs and Market Trends Assessment

A market study was also conducted to identify the anticipated residential development preferences during the 2040 forecast period. The results were to be used to evaluate the growth scenarios and how they relate to the potential demand for various kinds of housing. The primary goal of the study was to document market conditions and forecast residential demand. It focused on the evaluation of the residential market trends and factors, which would affect demand and preferences, and to use this information to forecast the types of homes future residents would prefer in an unconstrained market. The methodology intentionally eliminated from consideration the impact of, or potential changes to local or regional land use policy, as they would be addressed in the visioning process and did not reflect potential environmental constraints, such as water supply or air quality. An independent forecast of future single-family lot sizes was also provided.

Quantitative and qualitative trends and factors were used in the study. Quantitative data included demographic trends and forecasts, housing production trends, residential sales, and development densities. It also included a broad analysis of

qualitative trends reflecting demographic preferences, relevant development case studies, and evaluations of other metropolitan areas. The analysis also accounted for new opportunities for transit-oriented development (TOD). The study results were synthesized into specific calculations of forecast demand by decade, by county, for single family and multi-family units, with details regarding densities and configurations.

Critical Lands and Regional Trails Network

A third study was conducted to review critical lands in conjunction with the visioning process. The purpose was to evaluate the impact that land use and transportation (growth) scenarios would have on a variety of critical lands, and to incorporate a regional open space and trails component into the preferred Vision for the region. To facilitate the analysis GIS mapping of open space and trails was augmented by the workshop process. Participants were given the opportunity to draw “green areas” on the maps to indicate preferences for open space and to delineate trail routes. In addition, at the open houses that followed the workshops, public surveys were conducted relating to critical lands and trails.

The findings of the study provided data for analysis of how future growth within the region could either downgrade or remove critical lands, or preserve key areas for the enjoyment of future generations. The study also created a vision of a regional trails network that could encourage walking, other recreational uses, and improve access to open areas. This information was then used in the UrbanSim land use allocation model for each growth scenario and precluded any type of development from being allocated to the parcels identified as critical lands.

SCENARIO DEVELOPMENT PROCESS

With public outreach well underway and completion of the special studies the WFRC, MAG, and Envision Utah identified common themes and began to develop planning scenarios. Planners from these three organizations, guided by the workshop maps and survey results, developed four sketch scenarios - or visions - of what the region could become by 2040. The sketch scenarios reflected the common themes and notable differences identified in the workshops.

Scenario Development

The four sketch scenarios for the horizon year 2040 were tested and compared to one another using various growth and transportation ideas identified in the workshops, to determine how well they performed in achieving the Regional Vision. All four of the scenarios incorporated the same projected population and employment figures. However, each, scenario separately highlighted different transportation choices, the cost of which was approximately the same for each scenario. By eliminating differences in population, employment and transportation costs, the four scenarios could be tested for the effects of different growth and the transportation strategy options.

- **Scenario A:** This scenario reflected current trends and was named the “Business as Usual Scenario.” It was based on the existing municipal, county and multi-county plans to guide future growth and transportation. To determine how the impacts of each scenario might differ from current trends, Scenarios B, C, and D were compared to Scenario A.
- **Scenario B:** This scenario named “Transit Station Villages” is characterized by activity centers clustered near transit stops and stations. The suburbs generally retain the same density as found in the “Business as Usual” Scenario - with occasional neighborhood villages having a mix of apartments, condos, and neighborhood shopping. Scenario B included a significant increase in the amount of rail transit by emphasizing rail extensions and bringing light rail and commuter rail to more communities than currently planned.
- **Scenario C:** This scenario was named “Interconnected Network of Complete Streets”. Rather than encouraging development around transit nodes as in Scenario B, Scenario C intensified mixed-use development along walkable boulevards. These boulevards would be lined with townhouses, shopping, and office development (employment). New suburban neighborhoods in Scenario C remained largely residential and lower density in character. Scenario C’s boulevards would represent an interconnected network of complete streets that encourage the use of streetcars, biking and walking.

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destinations, which significantly reduced average driving distances. This in turn reduced traffic congestion and improved air quality.

Urban growth near transit opportunities encourages people to ride transit. Scenario B shows that if transit stations or bus stops are within walking distance of homes and businesses, more people find riding transit to be convenient. People will walk or use bicycles if the trip is short and the design (for pedestrians and cyclists) is convenient. If commercial destinations, like an office building or restaurant, are very close to each other and are located in a pedestrian-friendly setting, many people will choose to walk between them, rather than drive their vehicle.

- **Scenario D:** This scenario was named “Centers of Employment.” Scenario D was characterized by a greater number of strong suburban centers of employment in closer proximity to housing areas. Suburban neighborhoods had a greater mix of lot sizes and included more townhouses, apartments and condos. Scenario D emphasized new freeways and major roads to serve the Wasatch Front Region’s growing areas.

Scenario Evaluation

Examination of the scenarios and evaluation criteria resulted in some interesting observations. For instance, different patterns of land development can ease vehicle access, but aggravate mounting transportation challenges. By contrast, in a different scenario, the proposed future development patterns can help solve the mounting transportation challenges and reduce the rising cost of providing growth related infrastructure. Specific observations about the effects of different patterns of development follow.

Mixed-use development reduces driving distances and congestion. The distance traveled to work, shopping, schools, or parks is largely a function of the distance between these destinations and residences. The distance traveled per person directly affects the collective time it takes travelers to get where they need to go and the traffic congestion they are part of. Scenario C contained a higher mix of homes with

Transit-oriented development is a key strategy to increase redevelopment in existing urban areas and to reduce demand for growth on underdeveloped land. Scenario B’s emphasis on high capacity transit coupled with transit villages created more opportunities for reuse of land or “redevelopment.” Scenario B also exhibited the highest rate of redevelopment and, not surprisingly, also exhibited the lowest amount of development on vacant and critical lands.

Transportation choices help to determine where growth will occur and how much land area will be developed. The type of transportation solutions that are provided has an impact on the way communities grow and develop. New roadways and transit facilities, wherever they are built or expanded, increase accessibility, which in turn attracts growth. As planners and decision-makers consider where they should invest transportation dollars, they should ask the question, “Where do we want to encourage new growth - on redeveloping industrial and other urbanized properties, on vacant land near existing communities, or in new undeveloped areas?”

Interconnected streets help keep short trips off major highways and reduce congestion. Interconnected streets facilitate free traffic flow and the use of more direct routes. They also promote neighborhood cohesion. The length of time it takes to reach destinations is a function of distance as well as congestion. Shorter driving trips and less congestion mean

that if regional development takes place in accordance with the strategies embodied in Scenario C, there will be more time available for people to pursue individual choices and less time in congestion. The scenarios generally assumed that people who ride public transportation with its own dedicated right-of-way mostly bypass congestion. Generally, transit is a key means of reducing congestion during the all-important peak use periods. Even if transit carries only a small percentage of overall trips, it plays an important role in relieving rush-hour congestion. Data indicates that In Salt Lake County, TRAX carries the equivalent of one lane of freeway traffic during peak hours.

Strategic changes make a big difference. Surprisingly, the benefits of Scenarios B, C, and D, when compared to the “business as usual” Scenario A, are the result of relatively minor changes to the density of the region’s housing and land use. For example, Scenario C assumes about 27 percent townhouse and multifamily development, only 6 percent more than the “business as usual” Scenario A. The strategic placement of this type of development in walkable and mixed-use settings adjacent to transit is largely responsible for the advantages that Scenario C anticipates. This Scenario realized nearly a 10 percent reduction in congestion and a 3 percent reduction in vehicle miles traveled. Strategic changes throughout the region can vastly improve the individual quality of life without negatively impacting existing single-family neighborhoods to the degree that a more sprawling pattern of development would create.

SCENARIO MODELING PROCESS

The patterns of land use and the transportation systems in urban communities play a critical role in determining the livability and sustainability of those urban areas. It is important to model these patterns in an integrated way to reflect the strong interaction between land use and transportation. In this effort, the WFRC used an integrated modeling system, UrbanSim, as an analytical tool for the scenario modeling process to compare multiple land-use and transportation scenarios in a manner consistent with urban growth theory.

UrbanSim is a state-of-the-art approach to forecasting future land-use growth with growth forecasts influenced by the nature of the proposed transportation system. By coupling

UrbanSim with the regional travel demand model system, a range of land use and transportation policy interventions are combined into policy ‘scenarios’, and the systematic effects of these intervention strategies can be expressed in terms of projected urban development outcomes and the quality of the transportation system.

Modeling System Input

Critical inputs to the modeling system include base year socio-economic data, jurisdictional master plans, environmental constraints and the proposed future transportation system. The primary input for the UrbanSim model includes the base year data and future land use policy data. The base year data describes existing development and socioeconomic environment for the base year. This information includes households, employment, dwelling units, non-residential square footage, stated local government land use planning preferences, and environmental factors. All of this information is broken down to a 150-meter by 150-meter square area, called a grid cell, which contains an area of just over 5.5 acres. The grid cell is the basic unit for the UrbanSim model. There are approximately 150,000 grid cells covering the entire region.

The future land use policy data includes the land use plans of various municipalities and the counties for the unincorporated areas. For the regular travel demand model, the main inputs include socioeconomic data and transportation system data. In the integrated modeling process the socioeconomic data is automatically derived from the UrbanSim modeling process. Therefore, the main input data for the travel demand model is the proposed future transportation system, which is described as the highway network, transit networks and other features. From a modeling perspective, the highway network data are the number of lanes and the functional type for each roadway facility of every model year. The transit network data include all modes (Local Bus, Express Bus, Bus Rapid Transit, Light Rail/Streetcar, and Commute Rail) and all transit routes, their frequency and speed, park and ride nodes, walk access links, etc.

Based on the output from workshops and input from local government planners, four land use and transportation scenarios were developed to test various growth and transportation concepts. The tested scenarios are described in the Scenario Development section of this chapter.

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Modeling System Output

In this iterative land use and transportation model system, the resultant UrbanSim socio-economic data for each future year that falls within the 2040-planning horizon is entered into the Travel Demand Model. Various UrbanSim output data for every future year are analyzed before use in this process. These data include dwelling units, households, non-residential square foot, employment, land use consumption, land use type etc.

The travel demand model output consists of highway related and transit related information. The highway related information includes vehicle miles traveled (VMT), vehicle hours traveled (VHT), delay, speed, lane miles, etc. This information can be reported at different geographic levels such as region, county or municipality. It can also be classified for different functional types for the roadway facilities in the region. Transit information includes mode share by purpose and boardings, and other information collected at stations or a route level. On the basis of these model outputs, the tested scenarios were examined, compared and evaluated.

DEVELOPMENT OF THE REGIONAL VISION

Extensive surveys conducted for the visioning process were used to determine the general population's preferences and values with regard to growth and development. The results were used to develop criteria by which the various scenarios were tested. The preferred scenario of transit station villages, Scenario B, is characterized by activity centers clustered near transit stops and stations with the remainder of suburban areas generally remaining at the same density and with occasional neighborhood villages having a mix of apartments, condos, and neighborhood shopping. The second most preferred scenario of an interconnected network of complete streets, Scenario C, intensified mixed-use development along walkable boulevards lined with townhouses, shopping, and office development with new suburban neighborhoods remaining largely residential and lower density in character. This scenario represented an interconnected network of complete streets that encourage the use of streetcars, biking and walking. The WFRC's evaluation of these scenarios resulted in a combination of the best aspects of each, and the emergence of the draft Vision.

Refinement of the Regional Vision

The draft Vision was based on taking a combination of the best components of the preferred Scenarios. Revisions were undertaken based on input from the Technical Advisory Committees, the Regional Growth Committee, and various jurisdictions and stakeholders. Cues were taken directly from workshop results for locating mixed-use development centers and new transportation concepts. As a result, centers of development were located in central locations well served by existing and projected high capacity transportation facilities.

As the Vision matured the Regional Council Staff with the assistance of Envision Utah and other consultants continued to refine the Vision. Workshops were held in each of the four urbanized counties along the Wasatch Front. Local government planners and engineers provided input on how land use within their respective general plans could be improved to better reflect the projected growth throughout the region. Specific growth assumptions associated with the draft refined vision were reviewed for plausibility, consistency with local plans, and to incorporate knowledge of major development proposals that have a reasonable likelihood of being developed over the RTP planning horizon. As jurisdictional planners reviewed the draft vision refinement, they were reminded that county control totals would be maintained and, for that reason, many areas would have a growth assumption for 2040 that is below what their individual general plans allow, or the total jobs and households one might see in a potential major development.

Consultants considered the balance of households and jobs in sub-county areas to ensure the vision assumed a reasonable complement of retail and non-retail jobs in housing-rich areas. A balance of jobs and housing is a principle of the Wasatch Choice for 2040, so housing was likewise added to job-rich areas. Consultants ensured that the overall assumption for infill and redevelopment region-wide was also plausible. Consultants considered redevelopment and infill rates in other metropolitan areas whose current population approximates the WFRC/Mountainland MPO population projection for 2040. As the Vision was refined, the approximate percentage of growth that could be assumed through infill and redevelopment was maintained. Consultants also revised the Vision to better approximate recent land use trends. For example, more growth was assumed in southwestern portions of Salt Lake County.

Application of the Vision Scenario and Growth Principles

Once the Vision Scenario was finalized, the WFRC used it as a guide in the development of the Regional Transportation Plan. The land use suggestions that were used as an input to the demand modeling process were developed from the land use preference generated through the Vision Scenario. Revisions to the Vision Scenario land use recommendations were based on input from local government staffs and elected officials. The Regional Growth Principles were a resource in developing the evaluation and performance criteria used in the evaluation of future transportation needs, and the transportation system. The growth principles were also used in determining, ranking and projecting highway and transit projects in the 2040 RTP.

Urban Sim

Urban Sim relied on a set of statistical models that note patterns in the way the region has developed. The approach is designed to support metropolitan planning and policy analysis. One important advantage to this approach is that growth forecasts are influenced by the quality of the proposed transportation system. By coupling UrbanSim with the regional travel demand model system, a range of land use and transportation policy interventions are combined into policy ‘scenarios’, and the systematic effects of these intervention strategies can be used to project urban development outcomes and to assess the quality of the transportation system.

Modeling System Inputs and Outputs

Critical inputs to the modeling system include base year socio-economic data, jurisdictional master plans, environmental constraints and the proposed future transportation system. The model outputs include dwelling units, households, non-residential square footage, employment, land use consumption and land use type, as well as highway and transit related information. More detailed information on model inputs and outputs can be found in the previous section entitled, “Scenario Modeling Process.”

WASATCH CHOICE FOR 2040 VISION

The Wasatch Choice for 2040 Regional Vision is used to guide implementation of land use and transportation strategies that will result in more sustainable and livable communities for generations to come. The Vision will help maintain the high quality of life for the residents of the Wasatch Front as the population increases dramatically over the next three decades. Among other things, the Vision emphasizes using our limited financial resources more effectively, integrating land-use and transportation systems, meeting housing needs, building in areas with existing infrastructure, and energy conservation. It envisions new mixed-use villages and economic nodes with higher density centers tied together by an efficient, modern transportation system. This Vision for the future of the four urban counties is based on extensive market research showing that changing consumer demographics and

preferences, increasing land and energy costs, and a growing desire to trade commute time for family and recreation time are driving demand for living in or near centers. In short, the Vision gives people the housing and transportation choices they want while maximizing transportation investments and land use benefits. Implementing The Wasatch Choice for 2040 will provide significant quality-of-life benefits:

- Billions of dollars saved in infrastructure, housing and transportation costs
- Savings in travel time which can be used for other purposes
- Improves air quality for our health and economic growth



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- Maintains the character of existing neighborhoods
- Preserves key agricultural lands and other open spaces
- Provides housing for people of all life stages and incomes
- Uses less of our limited water resources
- Creates more active neighborhoods, supporting increased recreational activities
- Enhances the local economy and the ability to attract and retain skilled workers
- Provides more choices for how this and the next generation will live, work, and travel



By implementing the Vision, we can accommodate growth, enjoy more financial security, build first-class communities, and preserve the stunning beauty of our state.

Regional Growth Principles and Objectives

The nine Regional Growth Principles embody many of the values held by residents of the Wasatch Front Region. These Principles were adopted by the Regional Council after reviewing input from community workshops, open houses, committee deliberations, and polling. The Growth Principles are intended to promote quality growth throughout the Region. It is important that new growth be guided so that it can occur and be accommodated in the most efficient and cost effective way.

The Growth Principles were also intended to serve as a context for implementing general plans developed by local, state, and other entities. The Principles reflect community values and recognizes the importance of long-term sustainability and the need to make wise choices with limited resources. They serve as a resource in developing criteria and performance measures for regional transportation planning relating to the environment, economy, transportation, and other factors. It is recognized that collaboration will be needed among the Wasatch Front Region's local governments and others if these principles are to be implemented and their potential benefits realized.

Regional Growth Principles

1. Provide public infrastructure that is efficient and adequately maintained
2. Provide regional mobility through a variety of interconnected transportation choices
3. Integrate local land-use with regional transportation systems
4. Provide housing for people in all life stages and incomes
5. Ensure public health and safety
6. Enhance the regional economy
7. Promote regional collaboration
8. Strengthen sense of community
9. Protect and enhance the environment

The Regional Vision

The Regional Vision, the Wasatch Choice for 2040, aims to represent a pattern of growth and transportation solutions that reflect the spirit of the Growth Principles and is a plausible future. For example, the Wasatch Choice for 2040 pictures walkable villages - centers of housing and commercial enterprises arranged in a pedestrian-friendly setting - emerging in areas that are currently used for commerce and industry, but not in current residential subdivisions where such change would likely not be welcomed by the community. Change is envisioned primarily in strategic areas of regional transportation significance, which are the most central, accessible and high capacity transportation locations in the Region.

The Vision and Development Patterns

In The Wasatch Choice for 2040 Vision, the walkable, mixed-use centers of development would act like a growth sponge, absorbing future growth that would otherwise occur on the edge of our suburban communities. These centers help to create community gathering spaces, giving communities a sense of place. Opportunities for moderately priced housing with readily accessible public transportation would be important components of the mixed-use centers. Mixing land uses would allow for more efficient use of available land. The concentration of residential, office, retail, and well-planned open space would allow individuals the opportunity to live, work, shop, and recreate all within the confines of a limited geographic area or neighborhood.

The Vision and Critical Lands

The Wasatch Choice for 2040 Vision pictures a comprehensive system of green corridors connecting communities with trails and providing green buffers next to creeks and rivers. This trail and open space network includes the Jordan River Parkway, the Bonneville Shoreline Trail, Farmington Bay Bird Refuge, and a wide variety and location of regional and neighborhood parks. The system of trails would allow for increased opportunities for walking, biking, wildlife viewing, and relaxing. The protection of open space would offer opportunities for the protection of critical habitat areas, improving water quality, and protecting watersheds.

The Vision and Transportation

The Wasatch Choice for 2040 Vision balances a variety of transportation forms: (1) The Vision highlights the role that walking and bicycling can play as options for making daily trips; (2) The Vision recognizes that auto travel will continue to be the dominant form of transportation, but that greater use of interconnected boulevards from community center to community center can reduce the need to use freeways and expressways; (3) The Vision highlights the value that transit has in providing a more efficient alternative to single occupant auto travel, while reducing household transportation expenses. As growth continues, opportunities for proper planning and infrastructure investments will become apparent, thereby minimizing congestion and increasing transit options. Map 2-1 shows the Wasatch Choice for 2040 Region Vision with a description of green space, centers, and corridors. Appendix E is a specially developed brochure, entitled “Wasatch Choice

for 2040, We Can Choose a Better Future,” which highlights the planning process, the benefits, and illustrations of different strategies to better implement the of the Regional Vision.

Implementation Strategies for Local Governments

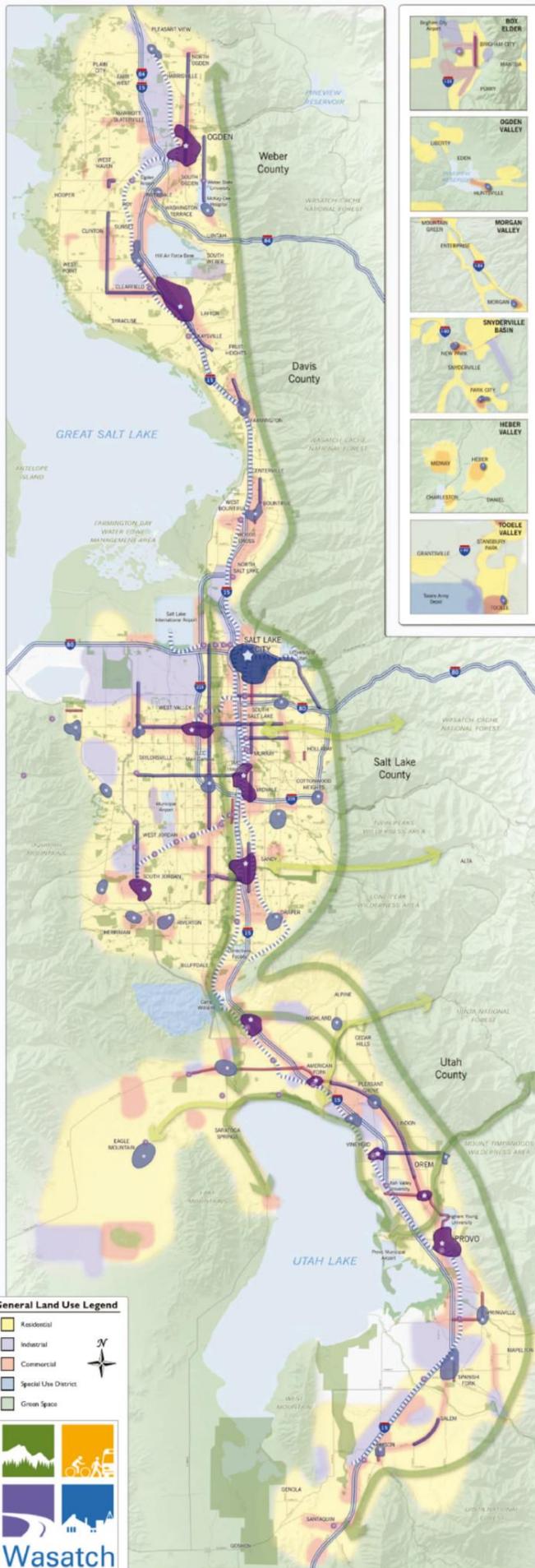
The Growth Principles and Objectives lay the foundation for maintaining or improving the quality of life as the Wasatch Front Region continues to grow. The Wasatch Choice for 2040 Vision process also identified strategies for implementing these growth principles. Below is a list of ten strategies for local governments to consider as they explore various methods by which Growth Principles and Objectives could be implemented. These strategies are basic primers intended to highlight initial steps and considerations.

Strategies For Local Governments

1. Develop a local land re-use strategy
2. Provide incentives for contiguous growth and infill
3. Preserve future transportation and utility corridors
4. Create walkable commercial and mixed-use districts
5. Plan for transit oriented development
6. Plan for and build neighborhood-friendly elementary schools
7. Create a plan for workforce housing
8. Interconnect roadways and pedestrian paths
9. Plan for job centers and economic development readiness
10. Minimize development and maximize conservation on and near critical lands

IMPLEMENTATION OF THE VISION

The implementation of the Wasatch Choice for 2040 Vision is a priority if the Region is to ensure its future quality of life. The WFRC staff conducted a special study to explore how the Vision and Regional Growth Principles might be utilized to produce the type of sustainable corridor development desired. The historic and regionally important State Street corridor was selected as a case study example. This Visioning exercise, entitled Life On State - Our Street, Our Vision (LOS), was a collaborative planning effort to develop: (1) a vision for the future of State Street; (2) a toolbox to aid in vision implementation; and (3) a focused planning effort on three or four defined areas where the Growth Principles are applied directly to improve the overall quality of this important



General Land Use Legend

- Residential
- Industrial
- Commercial
- Special Use District
- Green Space

Wasatch CHOICE for 2040



The Wasatch Choice for 2040 Vision Map

The Greater Wasatch is one region, stretching from Weber County south to Utah County and from Tooele County east to the Wasatch Back. We compete economically with other regions, comprise one job and housing market, and share the same air and water. Where and how we shape tomorrow's neighborhoods, communities, and economic centers within our region will dramatically affect the quality of our lives, including how much time and money we spend getting around, the quality of the air we breathe, and the choices we have available to live, work, shop, and play.

Greenspace

Greenspace rings our valleys, connects our cities, and provides space for civic and social functions in our towns and neighborhoods. The Wasatch Choice for 2040 affirms that our natural resources and working lands provide immense benefits. We should safeguard them to preserve our regional food system, protect our water quality, and maintain our recreational opportunities. These lands also provide needed wildlife habitat, help to clean our air, and provide relief from our urban environment. Even closer to home, our parklands and greenways provide critical gathering spaces, recreational amenities, and connection to the natural world.

Regional Greenways
The Bonneville Shoreline Trail, the Jordan River Parkway, and the Provo River Parkway

Regional Connections
Links between greenways and greenways and major population centers

Green Context
The Wasatch and Ogden Mountains, the Great Salt Lake, and Utah Lake

Centers

Centers are historical and emerging regional destinations of economic activity. The vision suggests that these centers should expand to provide ever-broadening choices for residents to live, work, shop and play, a mix of all of these activities is welcome. Centers should work with the long-term market, helping provide opportunities to residents who want to live close to work, walk or bike to shop, and have both great transit and road access – desperately needed as our population ages, gas prices and congestion increase, and housing prices inch upward.

Metropolitan Center

Downtown Salt Lake City is the metropolitan center, serving as the hub of business and cultural activity in the region. It has the most intensive form of development for both employment and housing, with high-rise development common in the central business district. It will continue to serve as the finance, commerce, government, retail, tourism, arts, and entertainment center for the region.

Floor Area Ratio 1 to 10
20 to 200 Housing Units per Acre

Urban Center

Urban centers are the focus of commerce and local government services benefiting a market area of a few hundred thousand people. Urban centers will be served by high-capacity transit and major streets. They are characterized by two- to four-story employment and housing options.

Floor Area Ratio 0.75 to 4
20 to 100 Housing Units per Acre

Town Center

Town centers provide localized services to tens of thousands of people within a two- to three-mile radius. One- to three-story buildings for employment and housing are characteristic.

Floor Area Ratio 0.5 to 1.5
10 to 50 Housing Units per Acre

Station Community

Station communities are geographically small, high-intensity centers surrounding high-capacity transit stations. Station communities vary in their land use: some feature employment, others focus on housing, and many will include a variety of shops and services.

Floor Area Ratio 0.5 to 2.5
20 to 100 Housing Units per Acre

Main-Street Community

Main streets are linear town centers. Each has a traditional commercial identity but on a community scale. Main-street communities prioritize pedestrian-friendly features, but also benefit from good auto access and often transit.

Floor Area Ratio 0.5 to 1.5
10 to 50 Housing Units per Acre

Boulevard Community

A boulevard community is a linear center coupled with a transit route. Unlike a main street, a boulevard community may not necessarily have a commercial identity, but may vary among housing, employment, and retail along any given stretch.

Floor Area Ratio 0.35 to 1.0
0 to 50 Housing Units per Acre

Corridors

Corridors combine a mix of uses—retail, offices, and residences—with multiple transportation options (sidewalks, bike lanes, roadways, and public transportation). Two types of corridors are identified in the Vision: Boulevard Communities and Main Streets. Examples of Boulevard Communities might include State Street or Redwood Road—with higher traffic volumes, yet envisioned as multi-modal boulevards with public transportation systems supporting increased residential, office, and commercial development. Main Street examples might include Magna or Lehi—more historic in character with lower traffic volumes, wider sidewalks, and more on-street parking.

regional corridor. The LOS partners included the WFRC, UDOT, UTA, Salt Lake County, Salt Lake City, South Salt Lake, Murray, Midvale, Sandy, Draper, the Salt Lake Chamber of Commerce, and the Downtown Alliance.

The Wasatch Choice for 2040 Regional Vision recognizes that local government planning agencies, working together with the local business community, can create a livable corridor for State Street that will help reduce the problems and impacts associated with this high traffic volume arterial street. These impacts include congestion, deterioration, visual blight, unfriendly pedestrian environments, and lack of residential population. The primary goal the LOS study was to develop specific strategies that are designed to enhance State Street and its surrounding land so that good planning and market forces will help form a more livable corridor over time. These strategies include establishing a visually pleasing boulevard, diversifying the land use character of the street frontage, eradicating pockets of blighted land uses, pruning back retail-zoned land, creating a sense of place, increasing street amenities, utilizing context sensitive solutions, managing property access, promoting different transportation modes, investigating various mixed-use development concepts, and introducing various livable corridor concepts. A livable corridor would include many of the following elements:

- Access to high frequency and reliable transit that connects to desired destinations
- Provisions for various motorized and non-motorized transportation modes
- Creation of purposeful walking opportunities for a higher percentage of residents
- Traffic calming, reduced accidents, and greater safety
- Redevelopment that will intensify the use of land adjoining the corridor to help achieve its “highest and best” use
- Trans-jurisdictional zoning ordinances that establish land use, building height, street setbacks, footprint, parking restrictions, type of signage, and access management
- A coordinated streetscape design that allows for visual themes, lighting, art, street furniture, trees and landscaping, awnings, open space, plazas, sidewalk, pavement treatment, etc.

The LOS study was initiated in April 2009 with several problem scoping meetings, goal setting, and direction from the partnership. Several public outreach efforts, including open houses, a visual preference survey, and several land use mapping exercises took place the following month. In August 2009, a design charette was held hosted by several notable local and national architects examined possible aesthetic and land use improvements for the State Street corridor. In September and October of that year, a series of Town Home meetings were held to provide feedback on the public input received to that date, along with the results of the design charette. Presentation on LOS recommendation to various municipal councils, chambers of commerce, and planning commission took place during October while the draft of the LOS document was being prepared. The final LOS report was released in March 2010. The Life On State study and results are an excellent example of a planning process that reflects the aspirations of local and state government officials and others who created and adopted the planning philosophies that formed the basis of Wasatch Choice for 2040 Regional Vision.